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Notice of Allowability	Application No.	Applicant(s)	
	10/759,107	FORBES ET AL.	
	Examiner	Art Unit	
	Toniae M. Thomas	2822	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed on 24 August 2005.
2. ☒ The allowed claim(s) is/are 20-34,36 and 37.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

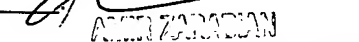
* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. <input type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____ |
|---|---|


 TONIAE M. THOMAS
 EXAMINER
 TECHNICAL STAFF

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
2. The application has been amended as follows:

In Specification

The first paragraph on page 1, before "Field of the Invention" has been replaced with:

-- This application is a divisional of Application Serial No. 10/164,611, filed June 10, 2002, now US 6,900,521, the subject matter of which is incorporated by reference herein. --

Reasons for Allowance

3. The following is an examiner's statement of reasons for allowance: as explained in the action mailed on 30 June 2005, the prior art of record does not anticipate, teach or suggest a method of forming a transistor substantially as claimed. For example, the closest prior art of record, Kencke et al. (US 6,313,487 B1), discloses a method of forming a transistor, wherein the method comprises forming at least one pillar extending outwardly from a surface of a semiconductor substrate, the pillar comprising a first source/drain layer formed over the substrate, a relaxed silicon germanium layer formed over the first source/drain layer, and a second source/drain layer formed over the

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relaxed silicon germanium layer. However, Kencke does not anticipate, teach or suggest a method of forming a transistor substantially as claimed, wherein the method comprises forming a strained silicon layer on each sidewall of the outwardly extending pillar, as recited in claim 20. There is no teaching or suggestion within the prior art of record to modify Kencke by forming a strained silicon layer on each sidewall of the pillar.

4. Furthermore, it is known to form a strained silicon layer in contact with a silicon germanium vertical pillar, which comprises a first source/drain layer formed over a semiconductor substrate, a strained silicon germanium layer formed over the first source/drain layer, and a second source/drain layer formed over the strained silicon layer, as evidenced by Kencke. It is also known to form a strained silicon layer in contact with a relaxed silicon germanium layer formed over a semiconductor substrate, as evidenced by Fitzgerald (US 2002/0123167 A1). However, the prior art of record does not anticipate, teach or suggest forming a strained silicon layer in contact with a silicon germanium vertical pillar substantially as claimed, wherein the pillar comprises a relaxed silicon germanium layer having a germanium content that is graded, as recited in claim 32.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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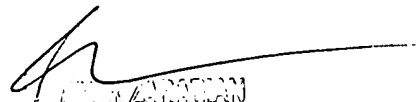
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toniae M. Thomas whose telephone number is (571) 272-1846. The examiner can normally be reached on Monday through Friday from 8:30 a.m. to 5:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amir Zarabian can be reached on (571) 272-1852. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TMT

06 September 2005



Toniae M. Thomas
Examiner
Art Unit 2822